APPENDIX A

TECHNICAL NOTES

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General information

The data in this report come from many sources, including surveys conducted by the National Science Foundation (NSF) and other Federal agencies, and by non-Federal organizations. Many methods of data collection are represented, such as universe surveys, sample surveys, and compilations of administrative records. Users should thus take great care when comparing data from different sources. These data often will not be strictly comparable due—among other things—to differences in definitions, survey procedures, and phrasing of questions.

Survey accuracy is determined by the joint effects of "sampling" and "nonsampling" errors. In all of the surveys that are sources of data for this report, efforts are made to minimize these errors. Sampling errors arise because estimates based on a sample will differ from the figures that would have been obtained if a complete census had been taken.

All surveys, whether universe or sample, are also subject to nonsampling errors; these can arise from design, reporting, and processing errors as well as from errors due to faulty response or nonresponse. Nonsampling errors include respondent-based events, such as some respondents interpreting questions differently from other respondents; respondents making estimates rather than giving actual data; and respondents being unable or unwilling to provide complete, correct information. Errors can also arise during the processing of responses, such as recording and keying errors.

Racial/ethnic information

Data collection on and reporting of the race/ethnicity of individuals pose several additional problems. First, both the naming of population subgroups and their definitions often have changed over time. Because this report draws on data from many sources, different terminology may have been used to obtain the various statistics presented here. Efforts have been made to maintain consistency throughout this text, but in some data reporting, it has been necessary to use distinct terminology that does not match that used in other compilations.

Second, many of the groups of particular interest are quite small, so that it is difficult to measure them accurately without universe surveys. In some instances, sample surveys may not have been of sufficient scope to permit calculation of reliable racial/ethnic population estimates; consequently, results are not shown for all groups. The Bureau of the Census's Current Population Survey, for example, cannot provide data on American Indians. Data on this population are available only from the decennial census. Another issue related to race/ethnicity is the fact that it is easy to overlook or minimize heterogeneity within subgroups when only a single statistic is reported for a total racial/ethnic group.

Third, data on race/ethnicity are often based on self-identification. These data are less reliable for certain racial/ethnic groups than for others. Data collected at two points in time indicate that self-identification of American Indians is much less reliable than self-identification of other racial/ethnic groups.[1]

Information about persons with disabilities

Data on persons with disabilities in science and engineering are seriously limited for several reasons. First, the operational definitions of "disability" vary and include a wide range of physical and mental conditions. Different sets of data have used different definitions and thus are

[1] U.S. Bureau of Labor Statistics, *A Test of Methods for Collecting Racial and Ethnic Information* (Washington, DC: U.S. Department of Labor, 1995).

not totally comparable. The Americans with Disabilities Act of 1990 (ADA) encouraged progress toward standard definitions. Under ADA, an individual is considered to have a disability if he or she has a physical or mental impairment that substantially limits one or more major life activities, has a record of such impairment, or is regarded as having such an impairment. ADA also contains definitions of specific disabilities.

Second, data about disabilities frequently are not included in comprehensive institutional records (e.g., in registrar records in institutions of higher education). If included at all in institutional records, such information is likely to be kept only in confidential files at an office responsible for providing special services to students. Institutions are unlikely to have information regarding any persons with disabilities who have *not* requested special services. In the case of elementary/secondary school programs receiving funds to provide special education, however, counts for the entire student population identified as having special needs are centrally available.

Third, information on persons with disabilities gathered from surveys is often obtained from self-reported responses. Typically, respondents are asked if they have a disability and to specify what kind of disability it is. Resulting data therefore reflect individual perceptions rather than objective measures.

An example—the attempt to provide estimates of the proportion of the undergraduate student population with disabilities—shows how these factors coalesce. Self-reported data from the undergraduate student population, queried on a survey to ascertain patterns of student financial aid, suggest that about 10 percent of this population report having some disability. Estimates from population surveys of higher education institutions, in contrast, place the estimate much lower, between 1 and 5 percent. Whether this discrepancy is the result of self-perception, incomplete reporting, nonevident disabilities, or differing definitions is difficult to ascertain.

In the final analysis, although considerable information is available on persons with disabilities and their status in the educational system and in the science and engineering workforce, it is often not possible to compare the numbers of persons with disabilities from different sources.

Primary non-NSF sources

The following non-NSF sources were used for data tables in this report.

The Integrated Postsecondary Education Data System Survey: Fall Enrollment, Completions, and Institutional Characteristics

Contact: National Center for Education Statistics
U.S. Department of Education
1990 K Street, NW
Washington, DC 20006
(202) 502-7300

http://nces.ed.gov/ipeds/

The Integrated Postsecondary Education Data System (IPEDS) Survey began in 1986 as a supplement to and replacement for the Higher Education General Information Survey (HEGIS), which began in 1966. HEGIS annually surveyed institutions listed in the current National Center for Education Statistics's (NCES's) *Education Directory of Colleges and Universities*; IPEDS surveys all postsecondary institutions, including universities and colleges and the institutions that offer technical and vocational education. The higher education portion is a census of accredited 2- and 4-year colleges; technical and vocational schools are surveyed on a sample basis.

IPEDS consists of several integrated component surveys that obtain information on types of institutions where postsecondary education is available, student participants, programs offered and completed, and the human and financial resources involved in the delivery of postsecondary education. IPEDS includes surveys of institutional characteristics; fall enrollment, including student age and residence; fall enrollment in occupationally specific programs; completions; finance; staff; salaries of full-time instructional faculty; and academic libraries.

The **IPEDS Institutional Characteristics Survey** provides the basis for the universe of institutions reported in the *Education Directory of Colleges and Universities.* The universe includes institutions that met certain accreditation criteria and offered at least a 1-year program of college-level studies leading toward a degree. Each fall, institutions listed in the previous year's directory are asked to update information on their school's characteristics.

The **IPEDS Completions Survey** replaces and extends the HEGIS Degrees and Other Formal Awards Conferred Survey. It is administered to a census of institutions offering degrees at the bachelor's degree level and above, all 2-year institutions, and a sample of less-than-2-year institutions.

The **IPEDS Fall Enrollment Survey** replaces and extends the previous HEGIS surveys of enrollment in institutions of higher education.

The National Postsecondary Student Aid Study

Contact: National Center for Education Statistics
U.S. Department of Education
1990 K Street, NW
Washington, DC 20006
(202) 502-7300

http://nces.ed.gov/npsas/

The National Postsecondary Student Aid Study (NPSAS) was established by NCES to collect information concerning financial aid allocated to students enrolled in U.S. postsecondary institutions. NPSAS was first administered in the fall of the 1986–87 academic year. NCES conducted subsequent cycles of NPSAS for the 1989–90, 1992–93, and 1995–96 school years. The 1989–90 cycle contained enhancements to the methodology used in the 1987 cycle. Estimates from the 1996 NPSAS sample are generally comparable to those from the 1993 and 1990 samples but not to those from the 1987 sample.

The 1995–96 survey gathered information from about 60,000 undergraduate and graduate students selected from registrar lists of enrollees at about 800 postsecondary institutions. The sample included students who did and did not receive financial aid, as well as students' parents. Student information, such as field of study, educational level, and attendance status (part or full time), was obtained from registrar records. Types and amounts of financial aid and family financial characteristics were abstracted from school financial aid records. Parents of students were also sampled to compile data concerning family composition and parental financial characteristics.

Engineering Workforce Commission Survey of Engineering and Technology Enrollments

Contact: Matt Doster
Engineering Workforce Commission
1111 19th Street, NW
Suite 403
Washington, DC 20036
(202) 296-2237

http://www.aaes.org/ewc/

For 29 years, the Engineering Workforce Commission (EWC) has conducted annual surveys of enrollments in engineering programs. The 1996 report on enrollments in engineering covers 335 institutions including all of those with curricula approved by the Accreditation Board for Engineering and Technology (ABET), as well as data on engineering technology from 285 schools. The response rate to the 1996 survey was 96.1 percent. EWC counts the number of students studying for engineering degrees at all ABET-accredited engineering schools throughout the United States. Historically, EWC has also included schools that are not ABET accredited for a variety of reasons unique to each school. Some such schools are in the process of obtaining ABET accreditation; others have simply asked to be included in the survey. Each year, EWC obtains data from all schools included in the previous year's survey so as to ensure accurate time-series comparisons.

Survey of Income and Program Participation

Contact: Michael McMahon
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233
(301) 457-3819

http://www.sipp.census.gov/sipp/

The Survey of Income and Program Participation conducted by the Census Bureau provides information on the economic situation of households and persons in the United States. The survey collects data on basic social and demographic characteristics of persons in households, labor force activity, type and amount of income, participation status in various programs, and various supplementary modules, for example, work history, health characteristics (including disability), assets and liabilities, and education and training.

A combined sample from the 1992 and 1993 panels of the Survey of Income and Program Participation provides the latest available data on the disability status of the noninstitutionalized population of the United States. A supplement containing an extensive set of questions about disability status was included as part of the ninth wave of the 1992 panel and the sixth wave of the 1993 panel. Both of these waves were fielded between September and December 1994. The total sample size for this study was approximately 40,000 interviewed households.

The disability supplements that have been asked in SIPP were designed to be consistent with the ADA definition of disability. The supplements obtain information on the ability to perform specific functional activities (seeing, hearing, having one's speech understood, lifting and carrying, climbing stairs, and walking); certain ADLs or activities of daily living (getting around inside the home, getting in and out of a bed or chair, bathing, dressing, eating, and toileting), and certain IADLs or instrumental activities of daily living (going outside the home, keeping track of money and bills, preparing meals, doing housework, and using the telephone). The survey also collects information on the use of such special aids as wheelchairs and canes, the presence of certain conditions related to mental functioning, and the ability to work at a job or business.

People 15 years old and over were identified as having a disability if they met any of the following criteria:

- Used a wheelchair or were a long-term user of a cane, crutches, or a walker
- Had difficulty performing one or more functional activities (seeing, hearing, speaking, lifting/carrying, using stairs, or walking)
- Had difficulty with one or more activities of daily living (the ADLs included getting around inside the home, getting in or out of bed or a chair, bathing, dressing, eating, and toileting)
- Had difficulty with one or more instrumental activities of daily living (the IADLs included going outside the home, keeping track of money and bills, preparing meals, doing light housework, taking prescription medicines in the right amount at the right time, and using the telephone)
- Had one or more specified conditions (a learning disability, mental retardation or another developmental disability, Alzheimer's disease, or some other type of mental or emotional condition)
- Were limited in their ability to do housework
- Were 16 to 67 years old and limited in their ability to work at a job or business
- Were receiving federal benefits based on an inability to work

People age 15 and over were identified as having a severe disability if they were unable to perform one or more functional activities; needed personal assistance with an ADL or IADL; used a wheelchair; were a long-term user of a cane, crutches, or a walker; had a developmental disability or Alzheimer's disease; were unable to do housework; were receiving federal disability benefits; or were 16 to 67 years old and unable to work at a job or business.

Primary NSF/Division of Science Resources Studies (SRS) sources

The following SRS sources were used for data tables in this publication. Published data tables from these surveys may be accessed on the SRS Web page <http://www.nsf.gov/sbe/srs>. In addition, researchers may access data directly from the SESTAT or WebCASPAR database systems, which can be accessed from the SRS Web page.

Survey of Earned Doctorates

The Survey of Earned Doctorates (SED) has been conducted annually since 1957 for the National Science Foundation, the U.S. Department of Education, the National Endowment for the Humanities, the National Institutes of Health, and the U.S. Department of Agriculture. This is a census survey of all recipients of research doctoral degrees such as Ph.D. or D.Sc.; it excludes the recipients of first-professional degrees such as J.D. or M.D. Therefore, SED data are restricted to research doctorates.

Data for the SED are collected directly from individual doctorate recipients contacted through graduate deans at all U.S. universities. The recipients are asked to provide information on the field and specialty of their degree as well as their personal educational history, selected demographic data, and information on their postgraduate work and study plans. Approximately 95 percent of the annual cohort of doctorate recipients respond to the questionnaire.

Partial data from public sources, such as field of study, are added to the file for nonrespondents. No imputations are made, however, for nonresponse for data not available elsewhere, such as race/ethnicity information. The data for a given year include all doctorates awarded in the 12-month period ending on June 30 of that year. Information on the SED can be found on the Web at <http://www.nsf.gov/sbe/srs/ssed/start.htm>.

Survey of Graduate Students and Postdoctorates in Science and Engineering

The data collected in the Survey of Graduate Students and Postdoctorates in Science and Engineering represent national estimates of graduate enrollment and postdoctoral employment at the beginning of the academic year in all academic institutions in the United States that offer

doctorate or master's degree programs in any science or engineering field. Included are data for all branch campuses; affiliated research centers; and separately organized components such as medical or dental schools, schools of nursing, or schools of public health. In fall 1997, the survey universe consisted of 723 reporting units at 601 graduate institutions. Data are collected at the academic department level.

Available information includes full-time graduate students by source and mechanism of support, including data on women and first-year students enrolled full time; part-time graduate students by sex; and citizenship and racial/ethnic background of all graduate students. In addition, detailed data on postdoctorates are available by source of support, sex, and citizenship, including separate data on those holding first-professional doctorates in the health fields; summary information on other doctorate nonfaculty research personnel is also included.

NSF has collected data on graduate science and engineering enrollment and postdoctoral appointees since 1966. From fall 1966 through fall 1971, data from a limited number of doctorate-granting institutions were collected through the NSF Graduate Traineeship Program, which requested data only on those science and engineering fields supported by NSF. Beginning with the fall 1972 survey, this data collection effort was assigned to the Universities and Nonprofit Institutions Studies Group of NSF's Division of Science Resources Studies. It was gradually expanded during the period 1972–75 to include additional science and engineering fields as well as all institutions known to have programs leading to the master's or doctorate degree. Because of this expansion, data for 1974 and earlier years are not strictly comparable with 1975 and later data. Information on the Graduate Student Survey can be found on the Web at <http://www.nsf.gov/sbe/srs/sgss/start.htm>.

NSF's SESTAT data system

In the 1990s, SRS redesigned its data system covering scientists and engineers. Termed SESTAT, the new data system integrates data from three SRS surveys—the Survey of Doctorate Recipients, the National Survey of College Graduates, and the National Survey of Recent College Graduates. The integration of the SESTAT surveys requires complementary sample populations and reference periods, matching survey questions, procedures, and field definitions, as well as weighting adjustments for any overlapping populations.

The surveys provide data on educational background, occupation, employment, and demographic characteristics. These surveys are of individuals and have a combined sample size of about 129,000, representing a population of about 12 million scientists and engineers. SESTAT defines scientists and engineers as those who either received a college degree (bachelor's level or higher) in a science or engineering field or who work as a scientist or engineer. Each of the three surveys that makes up the SESTAT data system collects new data every 2 years. The data reported in this publication were collected in 1997.

SESTAT has as its target population residents of the United States with a baccalaureate degree or higher who, as of the study's reference period, were noninstitutionalized, age 75 or less, and either educated as or working as a scientist or engineer. A baccalaureate-or-higher degree is a bachelor's, master's, doctorate, or professional degree. To meet the scientist or engineer requirement, the U.S. resident had to (1) have at least one baccalaureate-or-higher degree in a science or engineering field or (2) have a baccalaureate-or-higher degree in a non-science or -engineering field but work in a science and engineering occupation as of the survey reference week. For the 1997 SESTAT surveys, the reference period was the week of April 15, 1997.

Some elements of SESTAT's desired target population were not included within the target populations of any of the three SESTAT component surveys. Bachelor's and master's level science and engineering trained personnel missing from the survey frames are predominately:

- residents whose bachelor's and/or master's degrees in science and engineering were received prior to April 1990 or from a foreign institution, who resided outside the United States on April 1, 1990, but not with the U.S. armed forces stationed abroad; or
- residents with no baccalaureate or higher degree in any field as of April 1, 1990, who were awarded a degree in science and engineering after June 1994 by a U.S. institution or after April 1990 by a foreign institution.

Persons with at least a bachelor's degree who are working in science and engineering jobs, but have no degree in a science or engineering field, are underrepresented in the SESTAT database after 1993 because the surveys do not capture new persons entering these occupations who are not educated in science and engineering fields in this decade.

Doctorate-level science and engineering trained personnel missing from the survey frames are predominately:

- residents with doctorates in science and engineering received after June 1996 or from a foreign institution, with no baccalaureate-or-higher degree in any field as of April 1, 1990, and no bachelor's or master's degree in science and engineering received from a U.S. institution between April 1, 1990, and June 1996; or
- residents with doctorates in science and engineering received after June 1996 or from a foreign institution but with no bachelor's or master's science and engineering degree received from a U.S. institution between April 1, 1990, and June 1996, who resided outside the United States on April 1, 1990, but not with the U.S. armed forces stationed abroad.

SESTAT classifies the following broad categories as science and engineering occupations: computer and mathematical scientists, life and related scientists, physical and related scientists, social and related scientists, and engineers. Postsecondary teachers are included within each of these groups. The following are considered non-science and -engineering occupations: top- and mid-level managers; teachers, except science and engineering postsecondary teachers; technicians/technologists, including computer programmers; people in health and related occupations, social services and related occupations, sales and marketing occupations, and other non-science and -engineering occupations—for example, artists, broadcasters, editors, entertainers, public relations specialists, writers, clerical and administrative support personnel, farmers, foresters, fishermen, lawyers, judges, librarians, archivists, curators, actuaries, food service personnel, historians (except science and technology), architects, construction tradespeople, mechanics and repairers, and those involved in precision/production occupations, operators (for example, machine set-up, machine operators and tenders, fabricators, assemblers) and related occupations, transportation/material moving occupations and protective and other service occupations. Information on SESTAT can be found on the Web <http://srsstats.sbe.nsf.gov/>.

Sampling errors

Sampling errors occur when estimates are derived from a sample rather than from the entire population. The sample used for any particular survey is only one of a large number of possible samples of the same size and design that could have been selected. Even if the same questionnaire and instructions were used, the estimates from each sample would differ from the others. This difference, termed sampling error, occurs by chance, and its variability is measured by the standard error associated with a particular estimate.

The standard error of a sample survey estimate measures the precision with which an estimate from one sample approximates the true population value, and thus can be used to construct a confidence interval for a survey parameter to assess the accuracy of the estimate. Standard errors for the numbers in the appendix tables are provided where available. Tables A-1 through A-6 provide standard errors for tables in chapter 1. Tables A-7 through A-10 provide approximate standard errors for totals for different segments of the science and engineering population from the NSF SESTAT surveys. Information provided in tables A-11 through A-14 allows the user to calculate approximate standard errors for estimates derived from the NSF SESTAT surveys. The following formula can be used for estimating the standard error of totals:

$$SE(Y) = [\beta_0 Y^2 + \beta_1]^{1/2}$$

Where: SE(Y) is the predicted standard error of the estimated total Y and β_0 and β_1 are the regression coefficients provided in tables A-11 through A-14. Approximate standard errors for percentages can be calculated from the following formula:

$$SE(P) = [\beta_1/Y\,(P(100-P))]^{1/2}$$

Where: SE(P) is the predicted standard error for the percentage, Y is the estimated number of persons in the base of the percentage, and β_1 is the regression coefficients provided in tables A-11 through A-14. A 95 percent confidence interval for an estimate can be calculated by multiplying 1.96 by the standard error of the estimate, and adding and subtracting the resulting amount from the estimate.

Appendix table A-1. Standard errors for text table 1-5

Sex and race/ethnicity	Completed a degree			Still enrolled for bachelor's [2]	No degree, no longer enrolled toward bachelor's [3]
	Completed bachelor's	Completed associate's [1]	Completed certificate [1]		
Sex					
Men	1.7	1.0	0.7	1.5	1.7
Women	1.9	1.3	0.8	1.2	1.6
Race/ethnicity					
White, non-Hispanic	1.6	1.0	0.6	1.0	1.3
Asian/Pacific Islander	6.0	3.1	0.6	4.8	6.4
Black, non-Hispanic	3.3	3.1	1.2	2.8	4.1
Hispanic	4.8	2.2	3.3	4.6	5.5
American Indian/Alaskan Native	-	-	-	-	-

[1] Includes only students who are no longer working toward a bachelor's degree but who had completed another type of degree or award.

[2] Includes students who had completed another type of degree or award but are still working toward a bachelor's degree.

[3] Includes students who are no longer enrolled and students who are still enrolled but who are no longer working toward a bachelor's degree.

KEY: - = insufficient number of cases.

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *The Condition of Education 1998,* Supplemental Table 12-1.

Women, Minorities, and Persons With Disabilities in Science and Engineering: 2000

Appendix table A-2. Standard errors for appendix table 1-1

Estimated percentage	Base of percentage in thousands	Standard error	90 percent confidence interval [1]		95 percent confidence interval [1]	
			Lower bound	Upper bound	Lower bound	Upper bound
2 or 98	100	2.2	0.0	5.5	0.0	6.2
	100,000	0.1	1.9	2.1	1.9	2.1
10 or 90	100	4.6	2.4	17.6	1.0	19.0
	100,000	0.2	9.8	10.2	9.7	10.3
50	100	7.7	37.3	62.7	34.9	65.1
	100,000	0.2	49.6	50.4	49.5	50.5

[1] The confidence interval for the larger values can be found by taking the complement of that shown, e.g., for 98 it would be 93.8 to 100 for 95 percent confidence.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Educational Attainment in the United States,* in U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics: 1998,* p. 516.

Appendix table A-3. Standard errors for appendix table 1-2.

	All			White, non-Hispanic			Black, non-Hispanic			Hispanic		
March	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
1971	0.5	0.7	0.7	0.5	0.7	0.7	2.2	3.2	2.9	2.9	4.3	3.9
1972	0.5	0.7	0.7	0.5	0.7	0.7	2.1	3.2	2.8	2.9	4.3	4.0
1973	0.5	0.7	0.7	0.5	0.7	0.7	2.0	3.0	2.7	2.6	3.8	3.5
1974	0.4	0.6	0.6	0.4	0.6	0.6	1.9	2.8	2.6	2.5	3.6	3.4
1975	0.4	0.6	0.6	0.4	0.6	0.6	1.8	2.7	2.5	2.5	3.5	3.4
1976	0.4	0.5	0.6	0.4	0.5	0.6	1.7	2.7	2.3	2.5	3.6	3.4
1977	0.4	0.5	0.6	0.4	0.5	0.6	1.7	2.4	2.3	2.5	3.6	3.4
1978	0.4	0.5	0.6	0.4	0.5	0.6	1.6	2.4	2.2	2.3	3.3	3.2
1979	0.4	0.5	0.5	0.4	0.5	0.5	1.6	2.5	2.2	2.3	3.4	3.2
1980	0.4	0.5	0.5	0.4	0.5	0.5	1.5	2.3	2.0	2.2	3.1	3.0
1981	0.4	0.5	0.5	0.3	0.5	0.5	1.5	2.1	2.0	2.1	3.0	2.9
1982	0.4	0.5	0.5	0.4	0.5	0.5	1.4	2.1	1.9	2.1	3.1	2.9
1983	0.4	0.5	0.5	0.4	0.5	0.5	1.4	2.1	1.9	2.2	3.1	3.0
1984	0.4	0.5	0.5	0.4	0.5	0.5	1.4	2.2	1.8	2.1	3.0	2.9
1985	0.4	0.5	0.5	0.4	0.5	0.5	1.4	2.0	1.9	2.1	3.1	2.9
1986	0.4	0.5	0.5	0.4	0.5	0.5	1.3	1.7	1.8	2.0	2.9	2.9
1987	0.4	0.5	0.5	0.4	0.5	0.5	1.3	1.8	1.8	2.0	2.8	2.8
1988	0.4	0.6	0.5	0.4	0.6	0.5	1.5	2.2	2.0	2.3	3.2	3.2
1989	0.4	0.6	0.5	0.4	0.6	0.5	1.4	2.2	1.9	2.2	3.1	3.2
1990	0.4	0.6	0.5	0.4	0.6	0.5	1.4	2.1	1.9	2.0	2.7	2.8
1991	0.4	0.6	0.5	0.4	0.6	0.5	1.4	1.9	1.9	2.0	2.8	2.9
1992	0.4	0.5	0.5	0.4	0.6	0.5	1.4	2.0	2.0	2.0	2.7	2.9
1993	0.4	0.6	0.5	0.4	0.6	0.5	1.4	1.9	2.0	1.9	2.6	2.8
1994	0.4	0.5	0.5	0.4	0.5	0.5	1.1	1.7	1.5	1.2	1.7	1.8
1995	0.4	0.5	0.5	0.3	0.5	0.5	1.0	1.5	1.5	1.3	1.7	1.8
1996	0.4	0.5	0.5	0.4	0.5	0.5	1.1	1.6	1.6	1.3	1.7	1.9
1997	0.4	0.5	0.5	0.3	0.5	0.5	1.1	1.7	1.4	1.2	1.7	1.8
1998	0.4	0.5	0.5	0.3	0.5	0.4	1.0	1.5	1.4	1.2	1.7	1.8

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Appendix table A-4. Standard errors for appendix table 1-3

Disability status	1994 high school diploma status			
	High school diploma	GED or equivalent certificate	Enrolled in high school/working toward GED	Dropped out
Total	0.7	0.5	0.3	0.5
Does not have a disability	0.8	0.5	0.3	0.5
Has a disability	1.9	0.9	1.4	1.2
Visual impairment	6.0	3.8	5.1	1.2
Hearing impairment or deaf	5.1	3.7	4.1	1.8
Speech impairment	3.0	1.2	2.1	2.0
Orthopedic impairment	6.7	1.2	2.4	6.6
Learning disability	2.8	1.4	1.8	1.9
Other disability or impairment*	3.6	1.2	3.0	2.4

* Parent reported student had any other disability including health problems, emotional problems, mental retardation, or other physical disabilities and had received services for it.

NOTE: GED refers to passing the General Education Development exam.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study of 1988, Third Follow-up survey, 1994 (NELS: 88/94), Data Analysis System (in U.S. Department of Education, National Center for Education Statistics. 1999. *Students with Disabilities in Postsecondary Education: A Profile of Preparation, Participation, and Outcomes,* NCES 1999-187, by Laura Horn and Jennifer Berktold).

Appendix table A-5. Standard errors for appendix table 1-4

	All			White, non-Hispanic			Black, non-Hispanic			Hispanic		
March	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
1971	0.7	1.0	0.9	0.7	1.0	1.0	2.6	3.9	3.6	3.8	5.8	4.9
1972	0.7	0.9	0.9	0.7	1.0	1.0	2.6	3.9	3.4	4.0	6.0	5.2
1973	0.6	0.9	0.9	0.7	1.0	1.0	2.5	3.7	3.3	3.3	5.0	4.2
1974	0.6	0.9	0.9	0.7	1.0	1.0	2.4	3.5	3.2	3.3	4.8	4.5
1975	0.6	0.9	0.9	0.7	0.9	0.9	2.3	3.5	3.1	3.3	4.9	4.4
1976	0.6	0.8	0.8	0.6	0.9	0.9	2.2	3.4	2.9	3.2	4.8	4.2
1977	0.6	0.8	0.8	0.6	0.9	0.9	2.2	3.2	3.0	3.3	4.6	4.6
1978	0.6	0.8	0.8	0.6	0.9	0.9	2.2	3.2	2.9	3.1	4.4	4.3
1979	0.6	0.8	0.8	0.6	0.9	0.9	2.1	3.2	2.9	3.1	4.6	4.1
1980	0.6	0.8	0.8	0.6	0.9	0.9	2.0	3.0	2.7	2.8	4.1	3.8
1981	0.6	0.8	0.8	0.6	0.9	0.9	2.0	2.9	2.7	2.7	3.9	3.6
1982	0.6	0.8	0.8	0.6	0.9	0.9	2.0	3.0	2.7	2.7	4.0	3.8
1983	0.6	0.8	0.8	0.6	0.9	0.9	2.0	2.9	2.7	2.9	4.1	4.0
1984	0.6	0.8	0.8	0.6	0.9	0.9	1.9	2.9	2.6	2.8	4.1	3.8
1985	0.6	0.8	0.8	0.6	0.9	0.9	1.9	2.8	2.6	2.8	4.1	3.8
1986	0.6	0.8	0.8	0.6	0.9	0.9	1.9	2.7	2.6	2.6	3.8	3.7
1987	0.6	0.8	0.8	0.6	0.9	0.9	1.9	2.7	2.6	2.6	3.7	3.7
1988	0.6	0.9	0.8	0.7	1.0	1.0	2.0	3.0	2.8	2.9	4.2	4.2
1989	0.6	0.9	0.8	0.7	1.0	1.0	2.0	3.0	2.7	2.9	4.0	4.2
1990	0.6	0.8	0.8	0.7	1.0	0.9	2.0	2.9	2.7	2.6	3.6	3.6
1991	0.6	0.8	0.8	0.7	1.0	1.0	2.0	2.8	2.7	2.6	3.6	3.8
1992	0.6	0.9	0.8	0.7	1.0	1.0	2.0	2.9	2.8	2.6	3.5	3.8
1993	0.6	0.9	0.8	0.7	1.0	1.0	2.0	2.9	2.8	2.5	3.5	3.6
1994	0.6	0.8	0.8	0.6	0.9	0.9	1.7	2.5	2.3	1.6	2.2	2.4
1995	0.6	0.8	0.8	0.6	0.9	0.9	1.6	2.4	2.3	1.7	2.3	2.4
1996	0.6	0.8	0.8	0.7	0.9	0.9	1.7	2.6	2.4	1.7	2.3	2.5
1997	0.6	0.8	0.8	0.7	0.9	0.9	1.7	2.6	2.3	1.6	2.3	2.3
1998	0.6	0.8	0.8	0.7	1.0	0.9	1.7	2.5	2.3	1.6	2.2	2.3

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Appendix table A-6. Standard errors for appendix table 1-15

	All			White, non-Hispanic			Black, non-Hispanic			Hispanic		
March	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
1971	0.6	0.8	0.7	0.6	0.9	0.8	1.8	2.8	2.4	2.5	4.3	2.7
1972	0.6	0.8	0.8	0.6	0.9	0.8	1.8	2.6	2.5	2.3	3.6	2.8
1973	0.5	0.8	0.7	0.6	0.9	0.8	1.8	2.5	2.4	2.2	3.4	2.9
1974	0.5	0.8	0.7	0.6	0.9	0.8	1.6	2.4	2.1	2.0	2.7	3.0
1975	0.5	0.8	0.7	0.6	0.9	0.8	1.7	2.6	2.3	2.5	3.9	3.2
1976	0.5	0.8	0.7	0.6	0.8	0.8	1.8	2.6	2.4	2.2	3.7	2.5
1977	0.5	0.8	0.7	0.6	0.9	0.8	1.7	2.4	2.3	2.1	3.0	3.0
1978	0.5	0.8	0.7	0.6	0.9	0.8	1.6	2.2	2.2	2.3	3.3	3.4
1979	0.5	0.8	0.7	0.6	0.8	0.8	1.6	2.5	2.1	2.1	3.2	2.7
1980	0.5	0.7	0.7	0.6	0.8	0.8	1.5	2.1	2.0	2.0	3.0	2.6
1981	0.5	0.7	0.7	0.5	0.8	0.7	1.4	2.1	1.9	1.8	2.8	2.3
1982	0.5	0.7	0.7	0.6	0.8	0.8	1.5	2.1	2.0	2.0	3.1	2.7
1983	0.5	0.7	0.7	0.6	0.8	0.8	1.5	2.2	2.0	2.2	3.1	3.1
1984	0.5	0.7	0.7	0.6	0.8	0.8	1.4	2.2	1.8	2.2	3.1	3.0
1985	0.5	0.7	0.7	0.6	0.8	0.8	1.4	1.9	1.9	2.1	3.2	2.9
1986	0.5	0.7	0.7	0.6	0.8	0.8	1.3	1.8	1.9	1.9	2.7	2.7
1987	0.5	0.7	0.7	0.6	0.8	0.8	1.3	1.9	1.8	1.8	2.7	2.5
1988	0.5	0.8	0.7	0.6	0.9	0.8	1.5	2.2	2.0	2.3	3.3	3.1
1989	0.5	0.8	0.7	0.6	0.9	0.9	1.5	2.2	2.0	2.2	2.9	3.2
1990	0.5	0.8	0.7	0.6	0.9	0.8	1.5	2.3	1.9	1.8	2.4	2.7
1991	0.5	0.8	0.7	0.6	0.9	0.9	1.3	2.0	1.8	2.0	2.6	3.0
1992	0.5	0.8	0.8	0.6	0.9	0.9	1.4	2.0	1.9	1.9	2.5	2.8
1993	0.5	0.8	0.8	0.6	0.9	0.9	1.5	2.1	2.1	1.7	2.3	2.6
1994	0.5	0.7	0.7	0.6	0.9	0.8	1.2	1.8	1.7	1.1	1.4	1.7
1995	0.5	0.7	0.7	0.6	0.9	0.9	1.3	1.9	1.7	1.2	1.6	1.8
1996	0.5	0.8	0.8	0.7	0.9	0.9	1.3	1.8	1.9	1.2	1.7	1.8
1997	0.6	0.8	0.8	0.7	0.9	0.9	1.3	1.8	1.8	1.2	1.7	1.9
1998	0.6	0.8	0.8	0.7	0.9	1.0	1.3	1.9	1.8	1.2	1.6	1.7

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

Table A-7. Scientists and engineers in 1997 (total population) approximate standard errors for specified demographic groups

Estimated number	Demographic group				
	Total	Male	Female	White	Nonwhite
100	160	160	160	170	110
200	230	230	230	250	160
500	370	360	360	390	250
750	450	450	440	480	310
1,000	520	520	510	550	350
2,000	730	730	720	780	500
3,000	900	890	880	950	610
4,000	1,030	1,030	1,020	1,100	710
5,000	1,160	1,150	1,140	1,230	790
10,000	1,640	1,630	1,610	1,740	1,120
25,000	2,580	2,580	2,540	2,740	1,770
50,000	3,650	3,640	3,580	3,870	2,490
100,000	5,160	5,140	5,040	5,470	3,490
250,000	8,110	8,070	7,840	8,600	5,390
500,000	11,380	11,280	10,780	12,050	7,300
750,000	13,820	13,650	12,810	14,610	8,520
1,000,000	15,830	15,570	14,330	16,700	9,330
2,000,000	21,610	20,930	17,420	22,640	-
3,000,000	25,480	24,220	17,140	26,490	-
4,000,000	28,240	26,230	13,310	29,070	-
5,000,000	30,200	27,240	-	30,720	-
6,000,000	31,490	27,380	-	31,580	-
7,000,000	32,220	26,640	-	31,720	-
8,000,000	32,400	24,950	-	31,140	-
9,000,000	32,060	-	-	29,800	-
10,000,000	31,170	-	-	27,590	-
11,000,000	29,690	-	-	-	-
12,000,000	27,510	-	-	-	-

KEY: - = Not applicable.

NOTE: The term "scientists and engineers" includes all persons who have ever received a bachelor's degree or higher in a science or engineering field, plus persons holding a non-science and -engineering bachelor's or higher degree who were employed in a science or engineering occupation. White category excludes persons of Hispanic origin. Hispanics are included in the Nonwhite category.

SOURCE: National Science Foundation/Division of Science Resources Studies, 1997 SESTAT (Scientists and Engineers Statistical Data System).

Table A-8. Bachelor's scientists and engineers in 1997 approximate standard errors for specified demographic groups

Estimated number	Demographic group				
	Total	Male	Female	White	Nonwhite
100	170	170	180	180	130
200	240	240	250	260	180
500	380	380	390	410	280
750	470	470	480	510	350
1,000	540	540	550	580	400
2,000	760	760	780	830	570
3,000	940	930	960	1,010	700
4,000	1,080	1,080	1,110	1,170	800
5,000	1,210	1,210	1,240	1,310	900
10,000	1,710	1,700	1,750	1,850	1,270
25,000	2,700	2,690	2,770	2,920	2,000
50,000	3,810	3,800	3,900	4,120	2,810
100,000	5,380	5,360	5,490	5,810	3,930
250,000	8,470	8,410	8,540	9,120	6,010
500,000	11,860	11,730	11,740	12,740	7,960
750,000	14,390	14,150	13,960	15,410	9,060
1,000,000	16,460	16,100	15,610	17,560	9,590
2,000,000	22,360	21,320	18,970	23,450	-
3,000,000	26,200	24,220	-	26,940	-
4,000,000	28,830	25,590	-	28,900	-
5,000,000	30,560	-	-	29,640	-
6,000,000	31,530	-	-	29,240	-
7,000,000	31,820	-	-	-	-

KEY: - = Not applicable.

NOTE: The term "scientists and engineers" includes all persons who have ever received a bachelor's degree or higher in a science or engineering field, plus persons holding a non-science and -engineering bachelor's or higher degree who were employed in a science or engineering occupation. White category excludes persons of Hispanic origin. Hispanics are included in the Nonwhite category.

SOURCE: National Science Foundation/Division of Science Resources Studies, 1997 SESTAT (Scientists and Engineers Statistical Data System).

Table A-9. Master's scientists and engineers in 1997 approximate standard errors for specified demographic groups

Estimated number	Demographic group				
	Total	Male	Female	White	Nonwhite
100	160	160	180	180	110
200	230	220	250	250	160
500	360	350	400	390	250
750	440	430	490	480	300
1,000	510	500	560	560	350
2,000	720	710	790	790	490
3,000	890	860	970	970	600
4,000	1,020	1,000	1,120	1,110	700
5,000	1,140	1,120	1,250	1,250	780
10,000	1,620	1,580	1,770	1,760	1,100
25,000	2,560	2,500	2,790	2,790	1,730
50,000	3,610	3,530	3,940	3,940	2,410
100,000	5,100	4,980	5,540	5,560	3,330
250,000	8,050	7,860	8,610	8,770	4,860
500,000	11,330	11,060	11,810	12,360	5,770
750,000	13,810	13,480	14,010	15,070	-
1,000,000	15,870	15,480	15,630	17,330	-
2,000,000	22,000	21,460	-	24,080	-
3,000,000	26,390	-	-	-	-

KEY: - = Not applicable.

NOTE: The term "scientists and engineers" includes all persons who have ever received a bachelor's degree or higher in a science or engineering field, plus persons holding a non-science and -engineering bachelor's or higher degree who were employed in a science or engineering occupation. White category excludes persons of Hispanic origin. Hispanics are included in the Nonwhite category.

SOURCE: National Science Foundation/Division of Science Resources Studies, 1997 SESTAT (Scientists and Engineers Statistical Data System).

Table A-10. Doctorate scientists and engineers in 1997 approximate standard errors for specified demographic groups

Estimated number	Demographic group				
	Total	Male	Female	White	Nonwhite
100	90	90	80	90	80
200	120	130	120	130	110
500	200	200	190	210	170
750	240	240	230	250	210
1,000	280	280	270	290	240
2,000	390	400	380	410	340
3,000	480	490	460	510	410
4,000	550	560	530	590	480
5,000	620	630	600	650	530
10,000	870	890	840	920	750
25,000	1,380	1,390	1,330	1,460	1,180
50,000	1,940	1,950	1,880	2,050	1,650
100,000	2,710	2,700	2,660	2,860	2,260
250,000	4,110	3,990	-	4,330	-
500,000	5,410	4,900	-	5,670	-
750,000	6,080	-	-	-	-

KEY: - = Not applicable.

NOTE: The term "scientists and engineers" includes all persons who have ever received a bachelor's degree or higher in a science or engineering field, plus persons holding a non-science and -engineering bachelor's or higher degree who were employed in a science or engineering occupation. White category excludes persons of Hispanic origin. Hispanics are included in the Nonwhite category.

SOURCE: National Science Foundation/Division of Science Resources Studies, 1997 SESTAT (Scientists and Engineers Statistical Data System).

Table A-11. Scientists and engineers in 1997 (total population)
B_0 and B_1 parameters for specified demographic groups

Field	Parameter	Total	Male	Female	White	Nonwhite
Total scientists and engineers						
Total, all fields	B_0	-0.000017	-0.000024	-0.000054	-0.000023	-0.000039
	B_1	267.556809	266.082286	259.108978	301.435705	125.898534
Field of highest degree						
Computer/mathematical sciences	B_0	-0.000118	-0.000224	-0.000202	-0.000173	-0.000296
	B_1	236.726795	244.641287	202.746064	266.597694	127.850882
Life sciences	B_0	-0.000110	-0.000111	-0.000247	-0.000135	-0.000260
	B_1	252.300164	227.523157	238.407569	275.047714	127.697243
Physical sciences	B_0	-0.000130	-0.000108	-0.000366	-0.000151	-0.000340
	B_1	183.419662	179.296626	165.566548	194.881107	105.910509
Social sciences	B_0	-0.000068	-0.000114	-0.000117	-0.000096	-0.000086
	B_1	361.162128	366.520658	312.428733	394.585864	194.799605
Engineering	B_0	-0.000031	-0.000034	-0.000407	-0.000039	-0.000091
	B_1	155.244704	152.467898	130.166099	164.353694	98.656687
Non-science and engineering	B_0	-0.000041	-0.000056	-0.000142	-0.000063	-0.000144
	B_1	391.883715	391.371972	370.403467	464.260957	176.546023
Occupation						
Computer/mathematical sciences	B_0	-0.000058	-0.000118	-0.000145	0.000000	-0.000115
	B_1	207.120858	201.979137	221.171956	219.475688	112.508290
Life sciences	B_0	-0.000054	-0.000033	0.000101	0.000024	0.000329
	B_1	171.324258	165.658069	146.854238	184.032613	79.935406
Physical sciences	B_0	0.000020	0.000157	-0.000537	-0.000008	0.000003
	B_1	131.221795	127.962848	133.875792	147.988034	89.025751
Social sciences	B_0	0.000074	-0.000066	-0.000168	0.000119	0.000880
	B_1	179.055508	172.835886	181.634049	177.250549	102.254416
Engineering	B_0	-0.000027	-0.000037	0.000074	-0.000029	-0.000077
	B_1	159.874286	167.117021	123.484089	166.913897	95.014115
Non-science and engineering	B_0	-0.000021	-0.000029	-0.000085	-0.000024	-0.000065
	B_1	310.860242	331.017217	304.799577	342.790593	145.958454

NOTE: The term "scientists and engineers" includes all persons who have ever received a bachelor's degree or higher in a science or engineering field, plus persons holding a non-science and -engineering bachelor's or higher degree who were employed in a science or engineering occupation. White category excludes persons of Hispanic origin. Hispanics are included in the Nonwhite category.

SOURCE: National Science Foundation/Division of Science Resources Studies, 1997 SESTAT (Scientists and Engineers Statistical Data System).

Table A-12. Bachelor's scientists and engineers in 1997: B_0 and B_1 parameters for specified demographic groups

Field	Parameter	Total	Male	Female	White	Nonwhite
Bachelor's scientists and engineers						
Total, all fields	B_0	-0.000021	-0.000032	-0.000064	-0.000033	-0.000070
	B_1	292.072026	290.874243	307.666614	341.321185	161.723878
Field of highest degree						
Computer/mathematical sciences	B_0	-0.000161	-0.000350	-0.000313	-0.000244	-0.000523
	B_1	255.788202	273.246081	233.520328	288.343713	141.392413
Life sciences	B_0	-0.000168	-0.000238	-0.000325	-0.000196	-0.000564
	B_1	292.443412	283.990403	281.891414	308.427971	167.632490
Physical sciences	B_0	-0.000324	-0.000341	-0.000680	-0.000381	-0.000701
	B_1	260.144274	256.658700	205.987926	276.768608	140.415727
Social sciences	B_0	-0.000089	-0.000185	-0.000178	-0.000128	-0.000147
	B_1	401.032458	404.944022	372.999579	442.592722	217.401383
Engineering	B_0	-0.000046	-0.000050	-0.000654	-0.000055	-0.000169
	B_1	171.539618	170.262601	150.879601	174.117919	117.315629
Non-science and engineering	B_0	-0.000249	-0.000318	-0.000720	-0.000259	-0.000442
	B_1	317.094020	280.018204	350.393843	328.655762	155.987977
Occupation						
Computer/mathematical sciences	B_0	-0.000073	-0.000212	-0.000204	-0.000033	-0.000270
	B_1	253.378487	258.234019	265.097897	280.504996	133.191092
Life sciences	B_0	-0.000553	-0.000449	-0.000545	-0.000468	-0.002381
	B_1	247.125048	250.372992	212.013620	259.995237	147.018421
Physical sciences	B_0	-0.000108	0.000007	-0.000414	-0.000154	0.000217
	B_1	194.333236	204.680278	168.139846	211.388316	117.863110
Social sciences	B_0	-0.001155	-0.001403	-0.002197	-0.000882	-0.003235
	B_1	315.194469	310.604467	275.689409	336.142843	162.552004
Engineering	B_0	-0.000058	-0.000080	0.000218	-0.000030	-0.000066
	B_1	173.524026	180.212474	123.625802	166.756779	110.981096
Non-science and engineering	B_0	-0.000015	-0.000037	-0.000084	-0.000026	-0.000035
	B_1	304.877509	361.265645	320.447086	351.010494	163.044026

NOTE: The term "scientists and engineers" includes all persons who have ever received a bachelor's degree or higher in a science or engineering field, plus persons holding a non-science and -engineering bachelor's or higher degree who were employed in a science or engineering occupation. White category excludes persons of Hispanic origin. Hispanics are included in the Nonwhite category.

SOURCE: National Science Foundation/Division of Science Resources Studies, 1997 SESTAT (Scientists and Engineers Statistical Data System).

Table A-13. Master's scientists and engineers in 1997: B_0 and B_1 parameters for specified demographic groups

	Parameter	Total	Male	Female	White	Nonwhite
Master's scientists and engineers						
Total, all fields	B_0	-0.000010	-0.000010	-0.000070	-0.000010	-0.000110
	B_1	261.582425	249.272682	313.917037	310.518497	121.874418
Field of highest degree						
Computer/mathematical sciences	B_0	-0.000389	-0.000620	-0.000797	-0.000679	-0.000213
	B_1	169.670669	194.902956	149.497582	217.866249	90.851638
Life sciences	B_0	-0.000142	-0.000416	-0.001000	-0.000073	-0.000139
	B_1	157.906999	205.822719	163.498122	166.493218	98.266106
Physical sciences	B_0	-0.000941	-0.000601	-0.001941	-0.001147	-0.001750
	B_1	185.818730	159.117873	164.713894	198.691985	103.063673
Social sciences	B_0	-0.000277	-0.000560	-0.000381	-0.000323	-0.000176
	B_1	265.467258	273.757759	249.760731	287.154485	121.066908
Engineering	B_0	-0.000163	-0.000186	-0.000618	-0.000214	-0.000051
	B_1	135.843876	140.796694	92.550885	154.927495	74.673986
Non-science and engineering	B_0	-0.000021	0.000025	-0.000131	-0.000035	-0.000243
	B_1	399.699588	393.111572	402.282131	479.977509	183.805378
Occupation						
Computer/mathematical sciences	B_0	-0.000159	-0.000213	-0.000571	-0.000092	-0.000270
	B_1	184.317669	173.155011	171.508323	217.785387	84.823597
Life sciences	B_0	-0.000283	-0.000325	-0.000855	-0.000246	0.001694
	B_1	202.940762	222.393957	173.419563	223.626570	104.794791
Physical sciences	B_0	0.000242	0.000573	-0.000513	-0.000060	0.000320
	B_1	113.766030	107.688480	126.027724	129.325076	83.941575
Social sciences	B_0	0.000017	0.000174	-0.000450	0.000004	0.002675
	B_1	250.736471	221.594517	221.530535	265.808006	105.303265
Engineering	B_0	-0.000048	-0.000036	-0.000509	-0.000065	-0.000011
	B_1	131.759860	130.252047	152.762310	150.144122	81.251219
Non-science and engineering	B_0	-0.000024	-0.000042	-0.000084	-0.000022	-0.000234
	B_1	331.715740	319.924372	362.977029	379.776204	168.110343

NOTE: The term "scientists and engineers" includes all persons who have ever received a bachelor's degree or higher in a science or engineering field, plus persons holding a non-science and -engineering bachelor's or higher degree who were employed in a science or engineering occupation. White category excludes persons of Hispanic origin. Hispanics are included in the Nonwhite category.

SOURCE: National Science Foundation/Division of Science Resources Studies, 1997 SESTAT (Scientists and Engineers Statistical Data System).

Table A-14. Doctorate scientists and engineers in 1997: B_0 and B_1 parameters for specified demographic groups

	Parameter	Total	Male	Female	White	Nonwhite
Doctorate scientists and engineers						
Total, all fields	B_0	-0.000037	-0.000062	-0.000002	-0.000043	-0.000064
	B_1	76.876792	79.006129	71.073495	85.880316	57.503226
Field of highest degree						
Computer/mathematical sciences	B_0	-0.000492	-0.000536	-0.003185	-0.000514	-0.000905
	B_1	27.858922	28.313247	25.674674	29.191779	26.842639
Life sciences	B_0	-0.000105	-0.000159	-0.000304	-0.000135	-0.000278
	B_1	29.401256	32.145445	25.296874	29.929578	40.331744
Physical sciences	B_0	-0.000234	-0.000257	-0.000989	-0.000259	-0.000426
	B_1	41.161388	43.060035	25.584204	41.826782	42.554203
Social sciences	B_0	-0.000130	-0.000261	-0.000230	-0.000150	-0.000542
	B_1	37.558247	42.113636	36.095063	40.203225	27.270734
Engineering	B_0	-0.000235	-0.000290	-0.000306	-0.000368	-0.000269
	B_1	37.999650	40.072988	19.083474	45.586171	28.113431
Non-science and engineering	B_0	-0.000566	-0.001122	-0.000961	-0.000857	-0.002070
	B_1	273.973259	299.676674	263.741279	295.388354	189.319964
Occupation						
Computer/mathematical sciences	B_0	-0.000188	-0.000122	-0.003499	-0.000179	-0.001108
	B_1	58.055572	53.172544	80.217510	54.703795	47.476517
Life sciences	B_0	-0.000146	-0.000213	-0.000737	-0.000178	-0.000298
	B_1	38.301137	39.414343	42.071430	42.129457	31.226026
Physical sciences	B_0	-0.000190	-0.000222	-0.001019	-0.000209	0.000279
	B_1	40.900646	42.223431	27.096992	42.570874	34.256695
Social sciences	B_0	-0.000012	-0.000324	0.000054	-0.000069	-0.000410
	B_1	49.834241	58.233142	45.454993	52.324055	39.785321
Engineering	B_0	-0.000018	-0.000055	0.000027	-0.000008	-0.000022
	B_1	35.602742	37.226207	21.370513	40.643250	28.427238
Non-science and engineering	B_0	-0.000118	-0.000204	0.000043	-0.000148	0.000172
	B_1	151.701608	162.473119	128.810881	156.419107	101.502664

NOTE: The term "scientists and engineers" includes all persons who have ever received a bachelor's degree or higher in a science or engineering field, plus persons holding a non-science and -engineering bachelor's or higher degree who were employed in a science or engineering occupation. White category excludes persons of Hispanic origin. Hispanics are included in the Nonwhite category.

SOURCE: National Science Foundation/Division of Science Resources Studies, 1997 SESTAT (Scientists and Engineers Statistical Data System).